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Self Diagnosis Supported model

MANUAL DE SERVIÇO

BX-1S CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KV-21FA240	RM-YA005	BRAZIL	SCC-S80B-A

KV-21FA240

RM-YA005

TELEVISOR EM CORES TRINITRON®

SONY®

9-883-704-01

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3-2. ACESSANDO O MENU DO MODO DE SERVIÇO

Utilize o Controle Remoto para acessar o Menu do Modo de Serviço e execute os ajustes abaixo:

1. No modo de Standby (Power off).
2. Pressione os seguintes botoes no controle remoto, aproximadamente 1 segundo cada um:
   [DISPLAY] ➡ Canal [5] ➡ Sound Volume [+] ➡ [POWER]

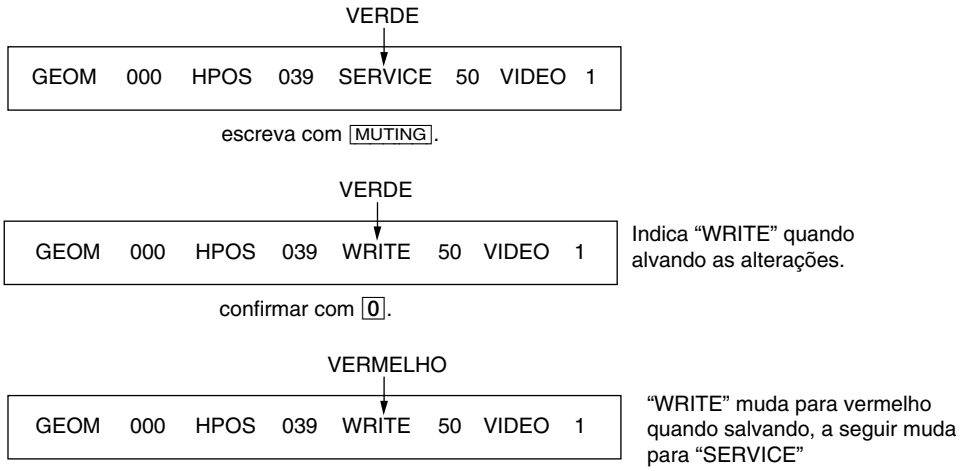
Na tela indicará primeiramente dados de serviço da categoria.

category	item no. in decimal	item name	service data in decimal	NVM NG	service command	field frequency	channel no./ video input name
GEOM	000	HPOZ	055	■	SERVICE	60	VIDEO 1

release ID	software version	service data in binary	reserved for factory	color system	power on time (decimal)
STR31	7.11U	0011 1111	FF FF	- - - - -	00084

	Flash DCXO	Status Byte #1 SSD	Status Byte #2 SSD
000 00 00 0000	3E	40 000	004000	0000FF

1. No controle remoto pressione a tecla [2] para selecionar próxima categoria ou [5] ara selecionar categoria anterior.
2. Tecle [1] para selecionar próximo item ou [4] para selecionar item anterior.
3. Tecle [3] para aumenter o valor do dado ou [6] para diminuir o valor do dado.
4. Tecle [MUTING] depois [0] para escrever na memória.


VERDE
GEOM 000 HPOS 039 SERVICE 50 VIDEO 1
escreva com [MUTING].
VERDE
GEOM 000 HPOS 039 WRITE 50 VIDEO 1
Indica “WRITE” quando alvando as alterações.
confirmar com [0].
VERMELHO
GEOM 000 HPOS 039 WRITE 50 VIDEO 1
“WRITE” muda para vermelho quando salvando, a seguir muda para “SERVICE”

Resetando Menu do Usuário

Utilize seguinte procedimento para resetar o Menu do Usuário que coloca para a configuração da fábrica.

1. Acesse no Modo de Serviço.
2. Tecle [8] depois [0] no Controle Remoto.

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3-3. CONFIRMAÇÃO DE ALTERAÇÃO NO MODO DE SERVIÇO

1. Após completar os ajustes, desligue o cabo AC da tomada e religue na tomada novamente.
2. Acesse no Modo de Serviço.
3. Utilizando as teclas do controle remoto, localise os itens ajustados para confirmar os ajustes executados.

3-4. AJUSTES DO BALANÇO DE BRANCO

NOTA: É necessário executar o ajuste do FOCO antes de iniciar o ajuste do Balanço de Brancot. (Veja item 2-3. FOCO)

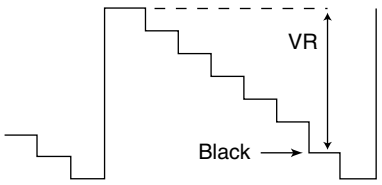
1. Entre no Modo de Serviço
2. Coloque um sinal branco.
3. Coloque na condição a seguir:
   Contraste “DINÂMICO”, PICT 006, anote o valor do “WTS” depois mude para 00.
4. Tecle 2 ou 5 para selecionar o item WHBL .
5. Tecle 1 ou 4 para indicar os itens 03 “GDRV”e 04 “BDRV”.
6. Tecle 3 ou 6 para ajustar o melhor ponto do balanço de branco.
7. No Cutoff, selecione WHBL 000 “BKOR” e 001 “BKOG” ajuste o dado..
8. Execute o ajuste na condição de Highlight e Cutoff até que atingir melhor condição.
9. Tecle MUTING depois ENTER para slavar na memória.
10. Coloque PICT 006 “WTS” para voltar no dado inicial.

3-5. AJUSTES DA QUALIDADE DE IMAGEM

Ajuste de P Max/Contrast

1. Coloque TV para modo de Video.
2. Coloque modo de Contraste para “CUSTOM”.
3. Coloque NTSC 75% CB

4. Coloque PICT 003 “PWL” para 00h, WHBL 017 “BLBG” para 01h.
5. Coloque na seguintes condições:
   CONTRASTE 100%, COR 0%, BRILHO 50%
6. Conecte osciloscópio no pino 4 (R Output) do CN004.
7. Tecle 1 ou 4 para indicar SADJ 000 “PMAX”, depois ajuste VR pressionando 3 ou 6 até que chegar a especificação abaixo:



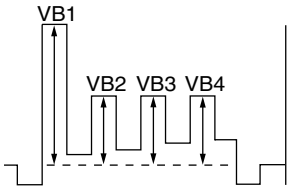
1.10 ± 0.03 Vp-p

8. Tecle MUTING depois 0 para escrever na memória.
9. Coloque “PWL” e “BLBG” para dado inicial.
   (“PWL”: 01h e “BLBG”: 00h)
10. Tecle MUTING depois 0 para escrever na memória.

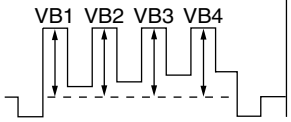
Ajuste de Sub Cor

1. Coloque TV para modo de Vídeo.
2. Coloque modo de Contraste para “CUSTOM”.
3. Coloque NTSC 75% CB

4. Coloque PICT 006 “WTS” para 00h e Intelligent Picture para “OFF”.
5. Coloque na seguintes condições:
   CONTRASTE 50%, COR 50%, BRILHO 50%, MATIZ 50%, NITIDEZ 50%
6. Conecte osciloscópio no pino 2 (B Output) do CN004.
7. Tecle 1 ou 4 para selecionar SADJ 004 “SCOL”, depois ajuste $V_{B2}=V_{B3}=V_{B4}$ (for PAL), VB1 = VB4 (for NTSC) pressionando 3 ou 6 , depois escreva no dado +5 passo adiante .



VB2 = VB3 = VB4 (for PAL)



VB1 = VB4 (for NTSC)
(Deferença entorno de 70mV)

8. Tecle MUTING depois 0 para escrever na memória
9. Coloque “WTS” no dado inicial e Intelligent Picture para “ON”.
10. Copie o dado no.9 para PAL TV & DVD mode.

Ajuste de Matiz (Sub Hue)

1. Coloque TV para modo de Video.
2. Coloque modo de Contraste para “CUSTOM”.
3. Coloque NTSC 3.58 CB .
4. Coloque na seguintes condições:
   CONTRASTE 50%, COR 50%, BRILHO 50%, MATIZ 50%, NITIDEZ 50%
5. Tecle 1 ou 4 para selecionar item e - 5 passos para SADJ 004 “SCOL”.
6. Conecte osciloscópio no pino 2 (B output) do CN004.
7. Tecle 1 ou 4 para selecionar SADJ 001 “SHUE”, depois tecle 3 ou 6 para ajustar o dado.
8. Tecle MUTING depois 0 para escrever na memória.
9. Tecle 1 ou 4 para selecionar SADJ 004 “SCOL”, depois Tecle MUTING depois 0 para escrever na memória .
10. Selecione canal de TV com 3.58 e repita itens (3) a (7).

11. Tecle MUTING depois 0 para escrever na memória.

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Ajuste de Sub Brilho

1. Coloque TV para o modo de RF.
2. Coloque sinal de monoscope .
3. Coloque o Brilho 50% e o Contraste para o “MÍNIMO”.
4. Tecle 1 ou 4 para selecionar WHBL 010 “SBRT”.
5. Tecle 3 para aumentar o valor do dado, ou 6 para diminuir o valor do dado para que o nível do cut-off seja 10 IRE, slightly glimmer: 20 IRE.
6. Tecle MUTING depois 0 para escrever na memória.

Ajuste de Geometria

Configuração Geral

1. Coloque o Monoscope ou Special Color Bar (SPCB) utilizando sinal de gerador de barras.
2. Entre no Modo de Serviço.
3. Selecione o item da categoria para proceder o ajuste pressionando 1 ou 4
4. Tecle 3 para aumentar o vlor do dado ou 6 para diminuir o valor do dado.
5. Tecle MUTING depois 0 para escrever na memória.

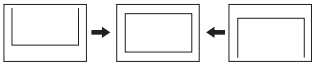
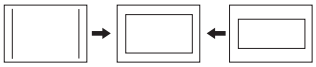
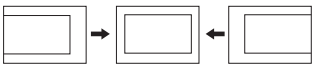
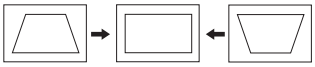
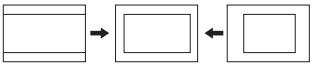
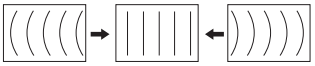
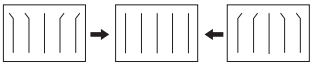
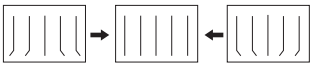
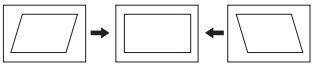
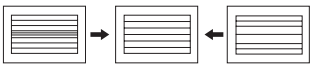
Item No.	Function	Illustration
GEOM 013 (VPOS)	Vertical Shift	
GEOM 011 (VSIZ)	Vertical Amplitude	 *Note: Adjust VSIZ to 12.4±(SPCB) 11.5±*
GEOM 000 (HPOS)	Horizontal Shift	
GEOM 009 (EWTZ)	EW Trapezoid	
GEOM 005 (HSIZ)	EW Width (EW)	 *Note: Adjust HSIZ to 16.4±(SPCB) 15.3±*
GEOM 002 (HBOW)	Horizontal Bow	
GEOM 006 (EWPW)	EW Parabola/Width (PW)	
GEOM 007 (UCOP)	EW Upper Corner Parabola	
GEOM 008 (LCOP)	EW Lower Corner Parabola	
GEOM 001 (HPAR)	Horizontal Parallelogram	
GEOM 012 (SCOR)	S-Correction(SC)	
GEOM 003 (VLIN)	Vertical Linearity	
GEOM 004 (VSCR)	Vertical Scroll	

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Tabela de Itens de Ajustes

NOTA

a) Na coluna inicial de valor (detailed), o dado após a marca barra ("/") refere-se para o dado do modelo NTSC.
Sem ("/") significa que é dado comum para os modelos Multi e NTSC.
b) O item indicado com "*" e "**", veja o dado de referência da página 25 .
c) itens sombradas são sem dados.
d) O dado padrão listado na Tabela de Itens de Ajustes são os valores de referências, portanto este é diferente para cada modelo e cada modo.
e) O valor de Dado Diferente são os valoes de dados padrões gravados no microoprocessador. Portanto, os valores dos dados dos modelos sào armanezados respectivamente dentro da memória.
Em no caso de substituição da peça, é necessário de ajuste e gravação do valor para alguns itens.
f) NTSC ver 6.16N.

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)			
Category	No.	Name	Dec	Dec					(4:3) 50	(4:3) 60	(4:3) w50	(4:3) w60
GEOM	000	HPOS	031	063	Horizontal Shift (HS)	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>	TV-Processor		31	31	31	31
	001	HPAR	031	063	Horizontal Parallelogram	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			31	31	31	31
	002	HBOW	031	063	Horizontal Bow	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			31	31	31	31
	003	VLIN	031	063	Vertical Linearity	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			31	31	31	31
	004	VSCR	031	063	Vertical Scroll	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			31	31	31	31
	005	HSIZ	031	063	EW Width (EW)	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			31	31	31	31
	006	EWPW	031	063	EW Parabola/Width (PW)	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			31	31	31	31
	007	UCOP	017	063	EW Upper Corner Parabola	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			17	17	17	17
	008	LCOP	017	063	EW Lower Corner Parabola	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			17	17	17	17
	009	EWTZ	031	063	EW Trapezium	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			31	31	31	31
	010	VSLP	031	063	Vertical Slope (VS)	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			31	31	31	31
	011	VSIZ	015	063	Vertical Amplitude	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			15	15	15	15
	012	SCOR	014	063	S-Correction (SC)	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			14	14	14	14
	013	VPOS	031	063	Vertical Shift (VSH)	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			31	31	31	31
	014	VZOM	031	063	Vertical Zoom (VZ)	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>						
	015	HBL	000	001	RGB Blan ing Mode	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			01	01	01	01
	016	WBF	007	015	Timing of Wide Blan ing (WBF)	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			07	07	07	07
	017	WBR	007	015	Timing of Wide Blan ing (WBR)	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>			10	14	10	14
	018	SBL	000	001	Service Blanking	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>		00				
	019	COPY	000	001	Copy the GEO data to all 50/60Hz NVM area	<4:3 Screen 50/60/w50/w60> <16:9 Screen (50/60)*(WZ/N/F/Z)>		00				

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TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)											
Category	No.	Name	Dec	Dec					Col Temp (COOL other)	Col Temp (WARM other)	Col Temp (NEUTRAL other)	Col Temp (COOL YUV)	Col Temp (WARM YUV)	Col Temp (NEUTRAL YUV)	YUV	Pic mode 0	Pic mode 1	Pic mode 2	TV	Video
WHBL	000	B OR	031	063	Blac Level Offset R (OFB = 00) Offset B (OFB = 01)	col temp (HIGH/LOW/Normal)*(UV/RGB/Others)	TV-Processor		31	31	31	31	31	31						
	001	B OG	031	063	Blac Level Offset G	col temp (HIGH/LOW/Normal)*(UV/RGB/Others)			31	31	31	31	31	31						
	002	RDRV	037	063	White Point R	col temp (HIGH/LOW/Normal)*(UV/RGB/Others)	TV-Processor		37	37	37	37	37	37						
	003	GDRV	037	063	White Point G	col temp (HIGH/LOW/Normal)*(UV/RGB/Others)			37	37	37	37	37	37						
	004	BDRV	037	063	White Point B	col temp (HIGH/LOW/Normal)*(UV/RGB/Others)			37	37	37	37	37	37						
	005	LPG	000	001	RGB Gain Preset	none		01												
	006	PGR	031	127	Preset Gain R (PGR)	none		40												
	007	PGG	031	127	Preset Gain G (PGG)	none		40												
	008	PGB	031	127	Preset Gain B (PGB)	none		40												
	009	GNOF	000	015	Preset Gain Offset	none	CCC loop	15												
	010	SBRT	031	063	Sub-Brightness	Others/RGB/YUV									31				31	31
	011	SBRO	000	003	Sub-Brightness Offset (Intelligent Pic)	none		02												
	012	EGL	000	001	Enable Gain Loop in CCC System	none		00												
	013	SGL	000	003	Selection of High Current in CCC System	none		00												
	014	AKB	000	001	Black Current Stabilization	none		00												
	015	CBS	000	001	Control Sequence of Beam Current Limiting	none		00												
	016	RGBB	000	003	RGB Blanking	none		00												
	017	BLBG	000	001	Blanking of Blue & Green Output	none		00												
	018	OFB	000	001	Black Level Offset Blue	none		01												
	019	NSBR	000	015	Non Standard Brightness Offset	none		00												
	020	WBP	000	003	Color Temp Setting (0:High, 1:Normal, 2,3:Low)	Picture Mode										00	01	01		

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)																
Category	No.	Name	Dec	Dec					YUV	50 pal (TV)	50 pal (Video)	50 Secam (TV)	50 Secam (Video)	60TV	60 (Video)	50YUV	60YUV	50RGB	60RGB	Pic mode 0	Pic mode 1	Pic mode 2	TV	Video	TV Wide (4:3)	Video Wide (4:3)
SADJ	000	PMAX	063	063	Picture Maximum	(TV / Video)*(Normal / Wide) / <Normal / Wide>	TV-Processor																37	37	37	37
	001	SHUE	007	015	Sub-Hue	TV / Video																	07	07		
	002	SSHP	015	063	Sub-Sharpness	TV / Video / YUV			42														40	42		
	003	SSHO	000	007	Sub-Sharpness Offset (Intelligent Pic)	none		06																		
	004	SCOL	031	063	Sub-Color	50pal(tv)/50pal(video)/50secam(tv)/50secam(video)/ 60TV/60video/50YUV/60YUV/50RGB/60RGB				00	31	00	31	31	31	00	31	00	31							
	005	SCOO	000	003	Sub-Color Offset (Intelligent Pic)	none		02																		
	006	PIC	031	127	Picture Control [GA:0~100(valid); >100(invalid); Others:0~63(valid); ignore bit 6(invalid)]	Picture Model(GA: Personal = User Reset Data)														100	80	80				
	007	COL	031	127	Color Control [GA:0~100(valid); >100(invalid); Others:0~63(valid); ignore bit 6(invalid)]	Picture Model(GA: Personal = User Reset Data)														96	50	50				
	008	BRT	031	127	Brightness Control [GA:0~100(valid); >100(invalid); Others:0~63(valid); ignore bit 6(invalid)]	Picture Model(GA: Personal = User Reset Data)														50	50	50				
	009	HUE	031	127	Hue Control [GA:0~100(valid); >100(invalid); Others:0~63(valid); ignore bit 6(invalid)] (*Send to TINT 1Eh(5-0) ith US model)	Picture Model(GA: Personal = User Reset Data)														50	50	50				
	010	SHP	031	127	Sharpness Control [GA:0~100(valid); >100(invalid); Others:0~63(valid); ignore bit 6(invalid)]	Picture Model(GA: Personal = User Reset Data)														60	50	50				

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TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)											
Category	No.	Name	Dec	Dec					Others	YUV	PAL(TV)	NTSC(TV)	SECAM(TV)	PAL(Video)	NTSC(Video)	SECAM(Video)	S-INPUT	SECAM	NTSC	TV
YC	000	PFRQ	000	003	Peaking Center Frequency and Delay	TV/other	TV-Processor		00											00
	001	RPA	000	003	Ratio Pre & Over Shoot	TV/other			01											01
	002	RPO	002	003	Ratio of Positive & Negative Peaks	TV/other			01											01
	003	YDLY	012	015	Y-Delay	(PAL/NTSC/SECAM)*(TV/VIDEO)+YUV/S-INPUT				09	8	07		02	09	02	09			
	004	CMAT	000	003	PAL-SECAM or NTSC (Japan/USA) Matrix			01												
	005	ACL	001	001	Automatic Color Limiting			01												
	006	CB	000	001	Chroma Bandpass Center Frequency	valid only with TV (*Video:0 fix)		00												
	007	SBO	001	003	SECAM Black Offset			00												
	008	CHSE	001	003	PAL/NTSC Ident Sensitivity			02												
	009	CLO	000	001	Center Frequency of Cloche(Bell) Filter			00												
	010	CTRP	000	001	Chroma Trap Mode	SECAM/others			00										00	
	011	QDT	000	001	Second Chroma Trap				00										01	
	012	BPS	000	001	Bypass of Chroma Base-band Delay Line	NTSC/others			01											
	013	FCO	000	001	Forced Color On			00												31
	014	TINT	1F	3F	Base-Band Tint Control	YUV/others			31	31										
	015	TUV	000	001	Tint Control on UV Signals			00												

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)								
Category	No.	Name	Dec	Dec					(4:3) 50	(4:3) 60	Others	YUV	TV	Video	Teletext	TV-ip	No signal
SYNC	000	SYS	000	001	Synchronization on YSYNC Input		TV Processor	00									
	001	FO	000	003	Phase 1 Time Constant	TV IP ON/TV IP OFF/Video/Teletext/Auto Tuning or No signal(RF)							03	03	00	00	00
	002	VID	000	001	Video Ident Mode	50/60			00	00							
	003	FSL	000	001	Forced Slicing Level for Vertical Sync			00									
	004	SSL	000	001	Slicing Level Sync Separator	50/60			00	00							
	005	SVID	001	007	Source Selection for Video Identification	YUV/Others					00	00					
	006	FORF	000	003	Forced Field Frequency			*									
	007	MVK	000	001	Macro Vision Keying			01									

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TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)									
Category	No.	Name	Dec	Dec					Others	RGB	Live	TV (Dyn)	TV (Others)	Video (Dyn)	Video (Others)	ColorTemp (IG)	ColorTemp (Others)	Color Temp(LOW)	Color Temp (NORMAL)
PICT	000	CADL	007	0F	Cathode Drive Level			00											
	001	CFA	000	003	Comb Filter Mode			00											
	002	SOC	002	003	Soft Clipping Level			00											
	003	PWL	001	001	Peak White Limiting Switch			01											
	004	WHTL	006	0F	Peak White Limiting			00											
	005	GAM	001	001	Gamma			00											
	006	WTS	001	003	Gamma Control and White Stretch	Live/Others			01		01								
	007	TFR	000	001	DC Transfer Ratio of Luminance Signal	Live/Others			01		01								
	008	COR	003	003	Coring	(TV/Video)*(Dyna/others)						00	00	00	00				
	009	CORO	000	003	Coring Offset (Intelligent Pic)			02											
	010	BKS	003	003	Black Stretch	RGB/others			02										
	011	AAS	001	001	Black Area to Switch off the Black Stretch			01											
	012	DSK	000	001	Dynamic Skin Control			00											
	013	BLS	000	001	Blue Stretch	col temp (HIGH/OTHERS)										00	00		
	014	NBLS	000	001	Operation Blue Stretch Circuit			00											
	015	NRR	000	001	Non Red Reduction	col temp (HIGH/LOW/NORMAL)										01		01	01

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)		
Category	No.	Name	Dec	Dec					YUV	Video	TV
SW	000	CV2	000	001	CVBS2 Input Signal Selection			00			
	001	SVO	001	003	Function of IFVO/SVO/CVBSI Pin @ 48	TV/Video/YUV			02	01	01
	002	DFL	000	001	Flash Protection			01			

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TVJ	Functionality		Initial	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
VIF	000	OIFD	036	063	Offset IF Demodulator		TV-Processor	35
	001	AGCT	031	063	AGC Take-over			31
	002	STM	000	001	Search Tuning Mode			01
	003	GD	000	001	Group Delay on CVBS1 Signal			00
	004	AGCS	001	003	IF AGC Speed			01
	005	FFI	000	001	Fast Filter IF PLL			00
	006	LNAI	000	001	RF Amp LNA bit initial value			00
	007	LNAT	195	225	RF Amp Threshold Level			195
	008	LNSN	004	007	RF Amp SN Level Threshold			03
	009	LNSD	002	007	RF Amp SN Level Drop Threshold			01
	010	LNEX	016	063	RF Amp check SN Drop Timing			30
	011	CHTR	048	127	Channel Threshold after Auto Prg to set RF Amp User Mode			25
	012	TUSO	000	001	Sony Tuner Used			00

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value(Detailed)		
Category	No.	Name	Dec	Dec					Pic mode 0	Pic mode 1	Pic mode 2
VM	000	RGBD	003	007	Delay of RGB Output to VM Output	none	TV-Processor	04			
	001	VMA	003	003	Amplitude of VM Output	none		00			
	002	VMAP	002	003	VM setting (0:High, 1:Low, 2,3:OFF)	Picture Mode			00	01	00
	003	VMMO	003	003	VM Mode			01			

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TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
SDEM	000	FMWS	000	003	Window Selection for FM Demodulator		TV-Processor	02
	001	QSS	001	001	Quasi Split Sound (QSS) Amplifier Mode (N/A for GA multi M system)			01
	002	BPB	000	001	Bypass of Sound Bandpass Filter			00
	003	AMLO	000	001	Audio Output Signal for AM Sound			00
	004	HPVC	000	001	Head Phone Volume Control			00
	005	CMCA	000	001	Activate Mono Channel			00

TVJ	Functionality		Init.	Range	Data	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec					
TXT	000	TXV	27	3F	FIX	Telete t Vertical Position for Philips		Te t Decoder	00
	001	THD	0A	7F	FIX	Telete t H-sync Active Edge Shift			00
	002	TBR	0F	1F	FIX	Telete t RGB Brightness			00
	003	ACQ	00	01	FIX	Telete t Ac uisition (Auto-0 PAL-1)			00

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TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)								
Category	No.	Name	Dec	Dec					TV	Video	RF Sub	Video Sub	Off	SRS/WOW	Trusurround	Istereo	Imono
SDSP	000	BBL	000	0F	BBE Contour		SSD	*									
	001	BBH	000	0F	BBE Process			*									
	002	BBLW	000	0F	BBE Contour Offset			*									
	003	SVOF	000	0F	Surround/Effect Mode Volume Offset	Off(SRS/WOW)/Trusurround/Istereo/Imono							*	*	*	*	*
	004	LAD	000	1F	Decoder Level Adjust			05									
	005	LAM	000	1F	Mono Level Adjust			05									
	006	LAN	000	1F	Nicam Level Adjust			22									
	007	LAS	000	1F	SAP Level Adjust			05									
	008	LAA	000	1F	ADC Level Adjust	RF/Video/centerSpk/RFSub/VideoSub			00	00	00/-	00/-					
	009	SEF	003	007	Incredible Mono/Stereo Effect	Istereo/Imono										05	03
	010	BAS	000	0F	Main Bass Offset			*									
	011	TRE	000	0F	Main Treble Offset			21									
	012	EQ1	000	0F	Equalizer Main Channel Band (100 Hz) Offset			20									
	013	EQ2	000	0F	Equalizer Main Channel Band (300Hz) Offset			03									
	014	EQ3	000	0F	Equalizer Main Channel Band (1000 Hz) Offset			00									
	015	EQ4	000	0F	Equalizer Main Channel Band (3000 Hz) Offset			00									
	016	EQ5	000	0F	Equalizer Main Channel Band (8000 Hz) Offset			00									
	017	BFCT	005	007	DBE D B and BBE Control			*									
	018	SCEN	001	0F	SRS3D Center Control			04									
	019	SSPA	000	0F	SRS3D Space Control			01									
	020	BBHW	000	0F	BBE process offset in WOW mode			*									
	021	STRE	002	007	Treble Offset for surround mode			01									
	022	BBHT	000	0F	BBE Offset in TV mode			00									
	023	TTRE	002	007	Treble Offset in TV mode			02									
	024	VBAS	000	003	Bass Offset depend on user volume			00									
	025	VTRE	000	003	Treble Offset depend on user name			00									
	026	TBAS	002	007	Bass Offset for TV			00									

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TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
SDEC	000	SPTU	003	0F	Upper Threshold for SAP carrier detection		SSD	05
	001	SPTL	006	0F	Lower Threshold for SAP carrier detection			15
	002	SPTH	000	1F	Noise Threshold for automute of SAP			09
	003	SPHY	004	0F	Hysteresis size for automute of SAP			03
	004	FMTH	000	1F	Noise Threshold for automute of SC2 in FM A2 standard			00
	005	FMHY	004	0F	Hysteresis size for automute of SC2 in FM A2 standard			04
	006	NILE	64	FF	NICAM lower error limit (DDEP)			50
	007	NIUE	C8	FF	NICAM upper error limit (DDEP)			200
	008	EPMD	001	003	DEMDEC Easy Programming (DDEP)	If EPMD = 0 and STDS = 0 and OP3 Bit 1 = 1 SDEC category is Disable and SDKC category will take over		01
	009	STDS	013	1F	Bits multiplexed for ASD and SSS modes			13
	010	OVMA	001	001	FM overmodulation adaption			00
	011	FLBW	000	003	FM/AM demodulator filter bandwidth			01
	012	IDMD	000	003	FM ident speed in SSS mode			01
	013	OVMT	001	002	Overmodulation level threshold relative to nominal			03
	014	DCXI	000	001	NICAM DCXO Scaling Control Inverter			00
	015	DCXG	000	007	NICAM DCXO Scaling Control Gain			00
	016	DCLL	013	0F	NICAM DCXO Scaling Control Limit (L)			00
	017	DCLH	000	1F	NICAM DCXO Scaling Control Limit (H)			00
	018	IDKR	001	003	IDMOD setting Korean M STD			00

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TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
HTV	000	VMAX	000	3F	Maximum Volume Level (MAX = 35+VMAX)	Volume Level		00
	001	VINI	019	1F	Initial Volume Level at Power on	Volume Level		25
	002	STBY	000	001	Last Power Status (0 = follow the last power status, 1 = always STBY)	Last Power		01
	003	IPRG	001	7F	Initial Program Number at Power on (only for Multi Models)	Program Number		01

0TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)			
Category	No.	Name	Dec	Dec					(4:3) 50	(4:3) 60	Others	YUV
OPTM	000	ASHT	006	007	Auto shut off timer (data * 5 min)			06				
	001	OSDB	0F	1F	OSD brightness		MMR/Micro 60h	12				
	002	OSDH	008	0F	OSD Horizontal Position		XDATA/Micro 60h	08				
	003	OSDV	025	3F	OSD Vertical Position	<4:3 50/60> <16:9 (50/60) (Wide)(Wide Zoom)(Normal Full)>	MMR/Micro 60h		63	39		
	004	MUTE	000	001	No Signal Mute Switch (1=enabled)			01				
	005	RFUL	0F	0F	RF Signal Change Counter after Unlocked (Disable when 0fh)			01				
	006	RFLK	0F	0F	RF Signal Change Counter after Locked (Disable when 0fh)			04				
	007	LANG	000	003	OSD language shipping condition			*				
	008	HTXT	000	001	Sync seperator sw		TV-Processor				00	00
	009	CMSS	000	001	Sync sw		TV-Processor	01				
	010	DCXO	3C	7F	DCXO Value		SFR/Micro 60h/DSP	47				
	011	DISC	80	FF	target DISCO data for DCXO adjust by color dec			128				
	012	EXBL	000	0F	Extended Blanking Timer to Eliminate White Noise			03				
	013	TSYS	000	003	Memorize TV Sys in NVM at Test Reset 0:B/G, 1:I, 2:D/K, 3:M (GA Model)			06				
	014	LNSW	001	001	Signal Booster Shipping/Test Reset condition (1:Auto, 0:Off)			00				
	015	AVUL	0F	0F	Av signal change after Unlocked (Disable when 0Fh)			04				
	016	AVLK	0F	0F	Av signal change after locked) (Disable when 0Fh)			00				
	017	DSTM	01	01	Disable stop mode in Standby (0: Stop mode, 1:disable Stop mode)			00				

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TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)	
Category	No.	Name	Dec	Dec					Others	YUV
OPUS	000	SOFF	000	001	Stay off(0:follow last memory with AC on, 1:standby with AC on)			01		
	001	SPCH	001	7F	Channel Number after Shipping Condition			*		
	002	SPCA	001	001	Cable Selection after Shipping Condition (1 = Cable On)			01		
	003	CCBR	0F	1F	CC Brightnes (only for US)			20		
	004	CCHP	008	0F	CC h position (only for US)			13		
	005	OUV	000	001	Offset Control on UV input Signals (only for US)	Others/YUV			00	00
	006	CFA2	000	001	Forced Comb Filter On (only for US)	none		00		
	007	HSYC	000	007	H Sync Selection for Tuning (SL, LOCK or SID)			01		
	008	CLK	7D	FF	US clock offset (1 step : 8ms / 15 min) (only for US)			122		
	009	CLKS	7D	FF	US clock offset (1 step : 8ms / 15 min) (only for US)			138		

(For NTSC model only)

TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common	Initial Value (Detailed)		
Category	No.	Name	Dec	Dec					Others	NTSC	SECAM
OPVP	000	BPBS	000	001	Bypass of sound bandpass filter at stereo mode (BPBS)		TV-Processor	00			
	001	BWYC	000	001	Bandwidth at YC mode for 3.58 MHz color system (BWYC)			00			
	002	OSB	000	001	Width of internal burstkey pulse of chroma demodulator (OSB)			00			
	003	BKC	000	001	Burst Key Position	NTSC/SECAM/others (PAL)			00	00	00

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TVJ	Functionality		Init.	Range	Function	Table & Note	Device Name	Common
Category	No.	Name	Dec	Dec				
OPTB	000	IALL	000	001	Standard Write Switch (not memorized in NVM)			X
	001	OPB1	000	FF	Option 1 (System related)			refer page 25
	002	OPB2	000	FF	Option 2 (Video Signal related)			refer page 25
	003	OPB3	000	FF	Option 3 (Stereo Decoding related)			refer page 26
	004	OPB4	000	FF	Option 4 (Miscellaneous)			refer page 26
	005	OPB5	000	FF	Option 5 (Miscellaneous)			refer page 27
	006	OPB6	000	FF	Option 6 (OSD Language related)			refer page 27

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Category	No	Name	NVM Address	21FA240
SDSP	002	BBL	A8E6	00
	003	BBH	A8E6	00
	004	BBLW	A8E9	06
	016	BAS	A8FA	18
	017	TRE	A8FB	18
	018	EQ1	AA00	23
	019	EQ2	AA01	02
	020	EQ3	AA02	00
	021	EQ4	AA03	20
	022	EQ5	AA04	21
	023	BFCT	A8F9	00
	026	BBHW	AA23	00

Category	No	Name	Model	Table							
				Off		SRS/WOW		Trusurround		Istereo		Imono	
SDSP	005	SVOF	21FA240	AA2A	04	AA2B	11	AA2C	04	AA2D	06	AA2E	04

Category	No	Name	Model	Table	
				Off	
SYNC	006	FORF	Brazil	A872	00

Category	No	Name	Model	Table	
				Off	
OPTM	007	LANG	Brazil	A03E	02

Category	No	Name	Model	Table	
				Off	
OPUS	007	SPCH	Brazil	A03D	05

Category	No	Name	Table	
			Off	
SYNC	006	FORF	A872	00
OPTM	007	LAN	A03E	02
OPUS	001	SPC		05

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INFORMAÇÃO DO ITEM

No. OPB1

Item	Speed Search		Home Theatre	Wide Screen	M	B/G	I	D/K	DEC
KV-21FA240	0	1	0	0	1	0	0	0	72

SPEED SEARCH (Time of speed search) 00 = disabled (original cycle speed)
01 = 4 time speed from the original
10 = 6 time speed from the original
11 = 8 time speed from the original

Home Theatre 1 = Home Theatre mode available
Wide Screen 1 = Wide Screen model
TV System Selection (M,B/G, I, D/K) 0 = disabled, 1 = enabled

No. OPB2

Item	Party Mode	FM Radio	Component	Composite (SCART)		SECAM	Color Decoding		DEC
KV-21FA240	0	0	1	0	1	0	1	1	43

Party Mode	Party Mode Function	0 = not available, 1 = available
FM Radio	FM Radio Function	0 = not available, 1 = available
Component	(Component [YCbCr] Terminals)	0 = not available, 1 = available
Composite	(No. of Composite Terminals)	00 = 1 composite terminal 01 = 2 composite terminals 10 = 3 composite terminals 11 = 4 composite terminals (BX1L FULL only)
SECAM	(SECAM Color System)	0 = disabled, 1 = enabled
Color decoding	(Color Crystal Selection)	00 = PAL/NTSC (Multi) 01 = NTSC (3.58MHz) 10 = PAL/NTSC (4.43MHz) 11 = PAL/NTSC (Tri-Norma)

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No. OPB3

Item	Reserved	NICAM ST	NICAM BI	A2 ST	Thai Bilingual	US ST	Korean ST	MONO	DEC
KV-21FA240	0	0	0	0	0	1	0	0	4

Reserved	Not used	
NICAM ST	(NICAM Stereo)	0 = disabled, 1 = enabled
NICAM BI	(NICAM Bilingual)	0 = disabled, 1 = enabled
A2 ST/BI	(A2 [West German] Stereo/Bilingual)	0 = disabled, 1 = enabled
Thai Bilingual	(A2 [Thai] Bilingual) or Force SAP if US ST is active	0 = disabled, 1 = enabled
US ST	(US Stereo)	0 = disabled, 1 = enabled
Korean ST	(Korean Stereo)	0 = disabled, 1 = enabled
MONO	(Monaural Model)	0 = Stereo (SSD) Model 1 = Monaural Model

No. OPB4

Item	Sound Special	1spk Models	VM	WSS-RF	Surround		Top	Text	DEC
KV-21FA240	0	0	0	0	0	0	0	0	0

Sound Special	Sound Special Feature	0 = disabled 1 = enabled
1 spk Models	1 Speaker Models	0 = 2 or 3 Speaker Models, 1 = 1 speaker Models
VM	(Velocity Modulation)	0 = disabled, 1 = enabled
WSS-RF	WSS detection in RF mode	0 = disabled, 1 = enabled
Surround	(Surround Selection)	00 = Off/Simulated/Surround 01 = Off/Simulated/SRS (3D) Surround 10 = Off/Simulated/WOW/TruSurround 11 = No Surround
TOP	(Forced TOP)	0 = Auto Mode (TOP/FLOF), 1 = Forced TOP
TEXT	(Teletext Model)	0 = Non-Teletext Model, 1 = Teletext Model

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No. OPB5

Item	Signal Booster	MSYS ASD	COSMIC ASD	ASD	Tilt	Band Edge	IP	Wide	DEC
KV-21FA240	0	0	0	0	0	0	1	1	3

Signal Booster	Signal Booster feature	0 = disabled, 1 = enabled
MSYS ASD	(ASD Improvement for M System channels) *Only applicable when ASD = 1	0 = disabled, 1 = enabled
COSMIC ASD	Automatic Standard Detection Using COSMIC (Non-Stereo)	0 = disabled, 1 = enabled
ASD	(Automatic Standard Detection)	0 = disabled, 1 = enabled
Tilt	(Tilt Correction/PIC Rotation)	0 = disabled, 1 = enabled
Band Edge	(VHF-H band Limit Position)	0 = 427.25MHz, 1 = 429.25MHz
IP	(Intelligent Picture & Intelligent Picture Plus)	0 = disabled, 1 = enabled
Wide	(Wide Mode/V-Compressed)	0 = disabled, 1 = enabled

No. OPB6

Item	Reserved	3D OSD	3D Comb	PiP	OSD Language Selection				DEC
KV-21FA240	0	0	0	0	0	1	0	1	5

Reserved	Not used		
3D OSD	(BX1L Full version GA Multi Destination ONLY)		0 = Normal with 3D Intelligent Picture OSD 1 = Disable 3D Intelligent Picture OSD
3D Comb	3D comb feature		0 = Comb Not available 1 = Comb available
PiP	PiP feature		0 = PiP Not Available 1 = PiP available
OSD Language Selection		US (GA NTSC)	1x1x = Complicated Chinese 1xxx = Simplified Chinese
		GA	x1xx = Arabic/Russian xx1x = Thai xxx1 = Persian/Vietnamese

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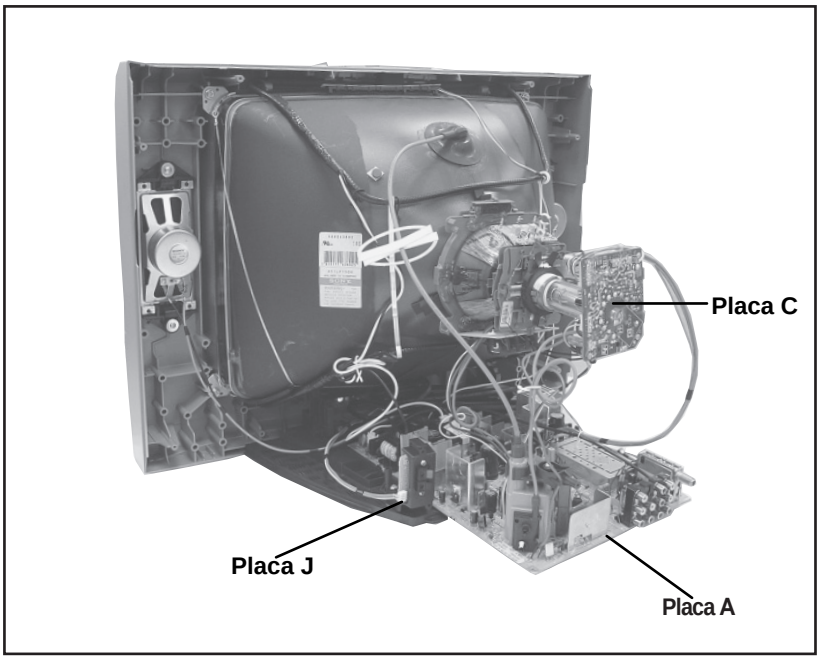
SEÇÃO 4: DIAGRAMAS

4-1. LOCALIZAÇÃO DAS PLACAS DE CIRCUITO



Os componentes sombreados ou com a marca ⚠ são críticos para a segurança.Somente os substitua pela peça especificada.

O símbolo ▬▬ indica fusível de operação rápida. troque-os somente por outro de mesmo valor, como indicado.

4-2. INFORMAÇÕES SOBRE PLACAS DE CIRCUITO IMPRESSO E DIAGRAMAS ESQUEMÁTICOS

Todos os capacitores estão µF a menos que indicados. pF : µµF 50WV ou menos não são indicados, exceto para os eletrolíticos e os de tântalo.

Todos os eletrolíticos são de 50V a menos que especificados.

Todos os resistores estão em ohms. k=1000, M=1000k

Para indicações de resistência, que não tiverem o valor da potência segue o seguinte: Pitch : 5mm Rating electrical power :

$^1/_4$ W em resistência, $^1/_{10}$ W e $^1/_8$ W em resistência de chip.

: resistor anti-chama

: fusistor

△ : componente interno

▭ : designação no painel e ajsutes para reparo

⊥ : terra

⏚ : terra (chassis)

Todos os variáveis e resistores ajustáveis tem curva característica B, a menos que especificados.

As leituras devem ser feitas com sinal de barras coloridas.

As leituras devem ser feitas com um multímetro digital de 10Mohms

As tensões estão em relação ao terra DC a menos que especificadas.

Variações de tensão podem ser consideradas desde que dentro da tolerância.

Todas as tensões estão em V.

S : impossível de medir

: linha +B

(o valor atual medido pode ser diferente).

⇨: linha do sinal . (RF)

Números circulados se referem a formas de onda.

INFORMAÇÃO PARA REFERÊNCIA

RESISTOR

: RN	METAL FILM
: RC	SOLID
: FPRD	CARBONO ANTICHAMA
: FUSE	FUSIVEL ANTICHAMA
: RW	FIO ANTICHAMA
: RS	METAL OXIDE ANTICHAMA
: RB	CIMENTO ANTICHAMA
: ※	RESISTOR AJUSTÁVEL

INDUTOR

: LF-8L	MICRO INDUCTOR

CAPACITOR

: TA	TANTALUM
: PS	STYROL
: PP	POLYPROPYLENE
: PT	MYLAR
: MPS	METALIZED POLYESTER
: MPP	METALIZED POLYPROPYLENE
: ALB	BIPOLAR
: ALT	ALTA TEMPERATURA
: ALR	HIGH RIPPLE

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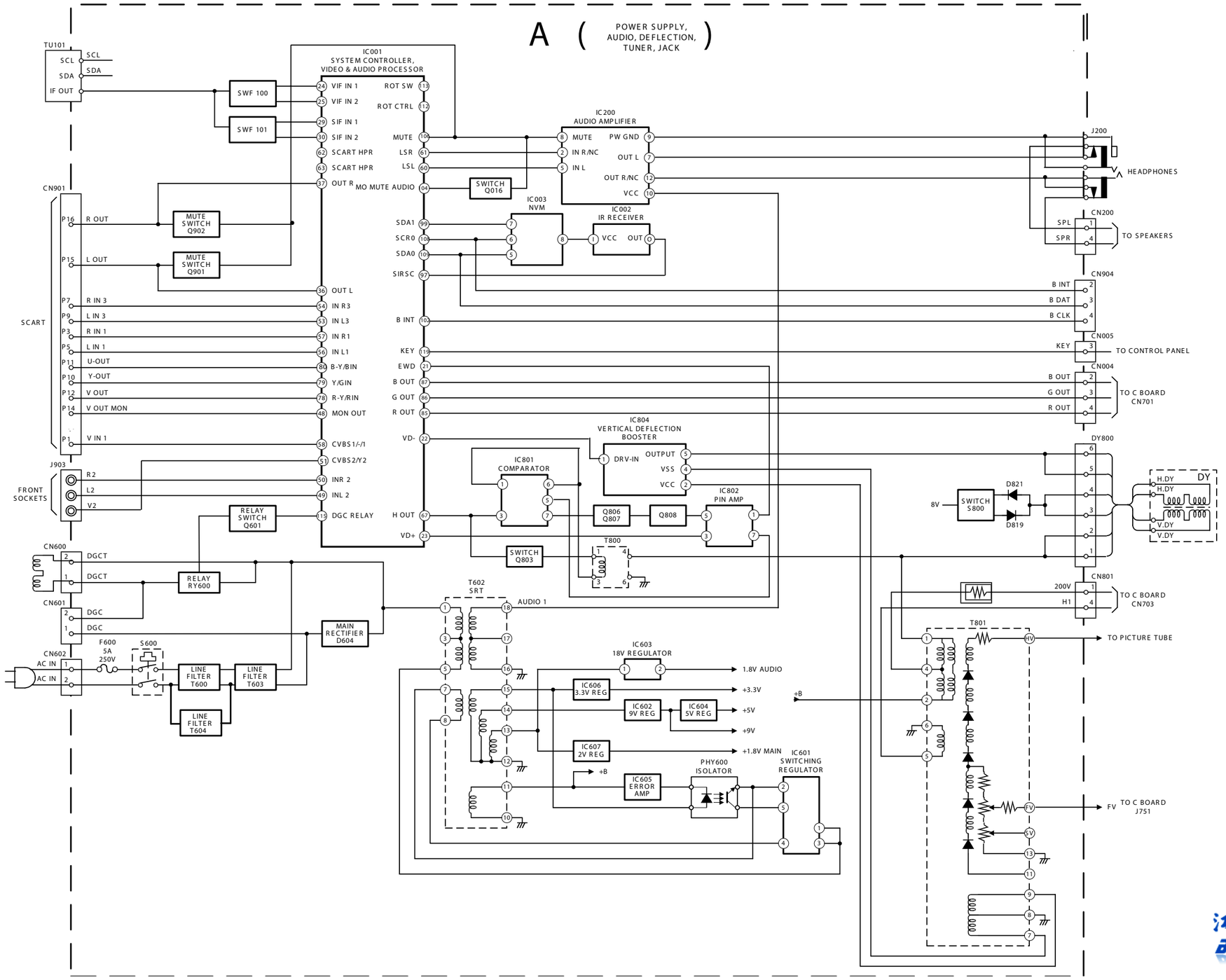
4-3. DIAGRAMAS EM BLOCOS E ESQUEMÁTICOS
DIAGRAMA EM BLOCO DO FLUXO DE SINAL



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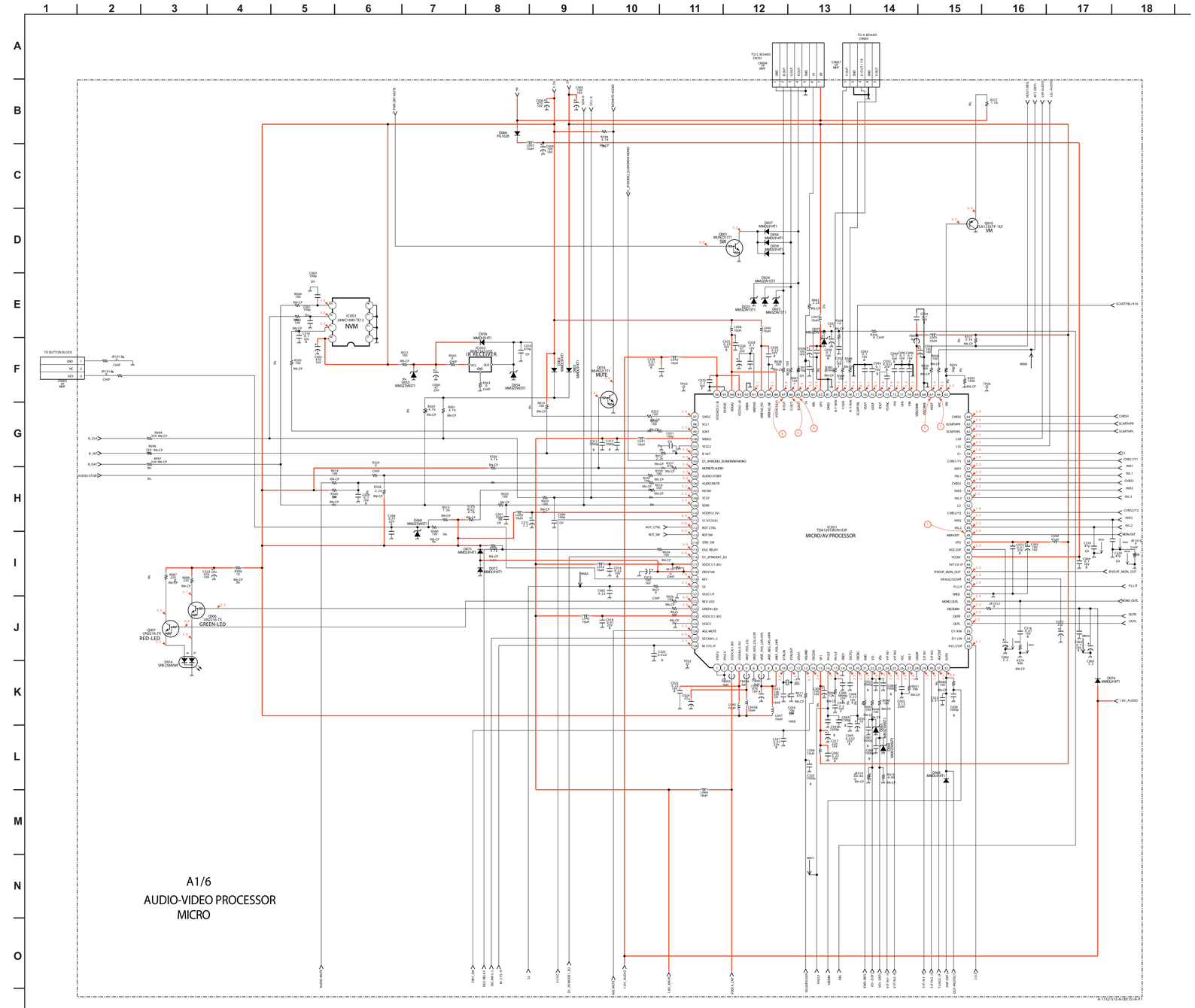
4-4. INFORMAÇÕES DAS ESQUEMAS E SUPORTE

DIAGRAMA ESQUEMATICO DA PLACA A (1 DE 6)



FORMAS DE ONDAS DA PLACA A

1 2.5 Vp-p (V)	2 5.4 Vp-p (H)	3 3.2 Vp-p (H)
4 1.6 Vp-p (H)	5 1.8 Vp-p (H)	6 2.0 Vp-p (H)

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DIAGRAMA ESQUEMÁTICO DA PLACA A (2 DE 6)

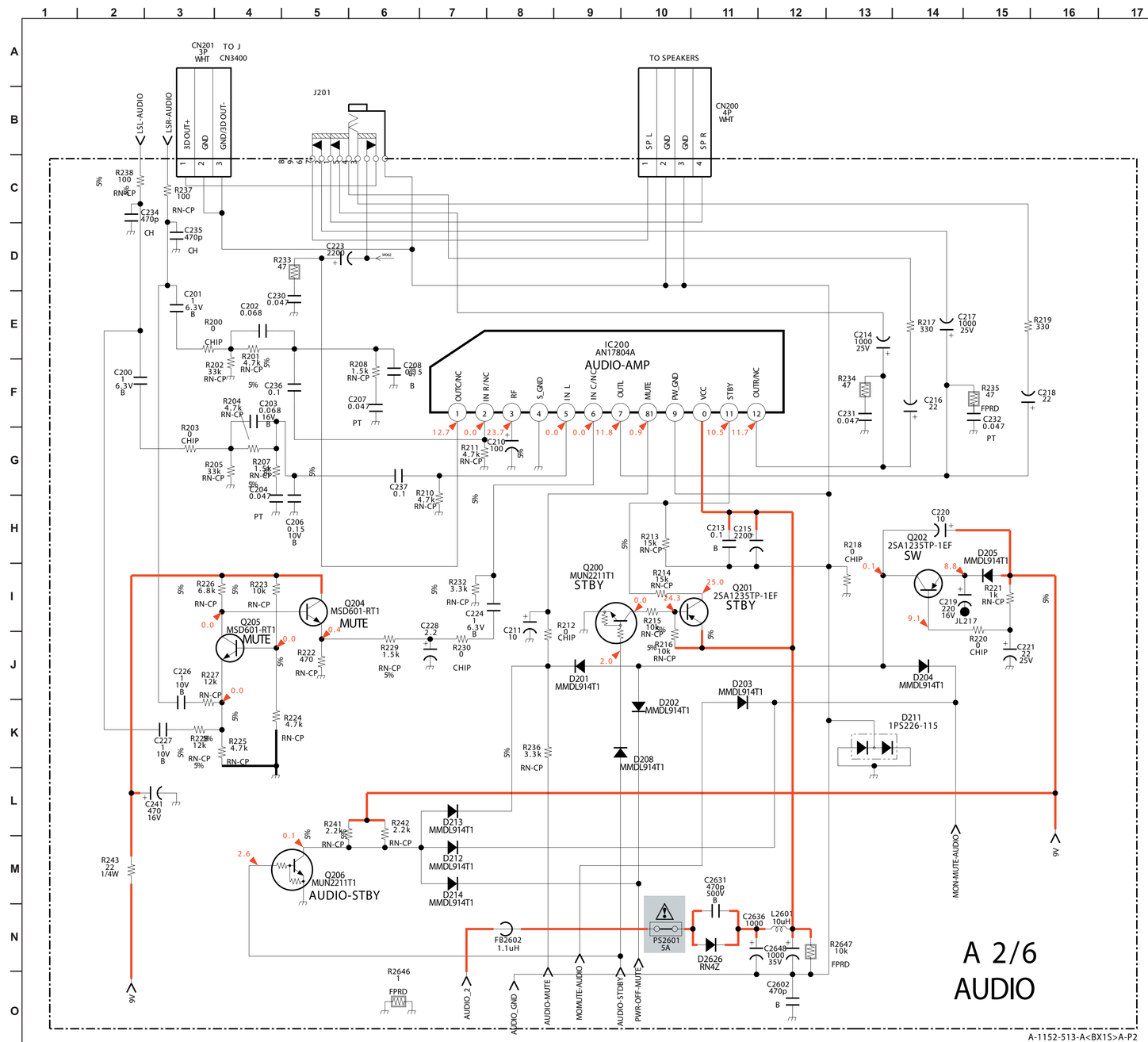

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DIAGRAMA ESQUEMÁTICO DA PLACA A (3 DE 6)

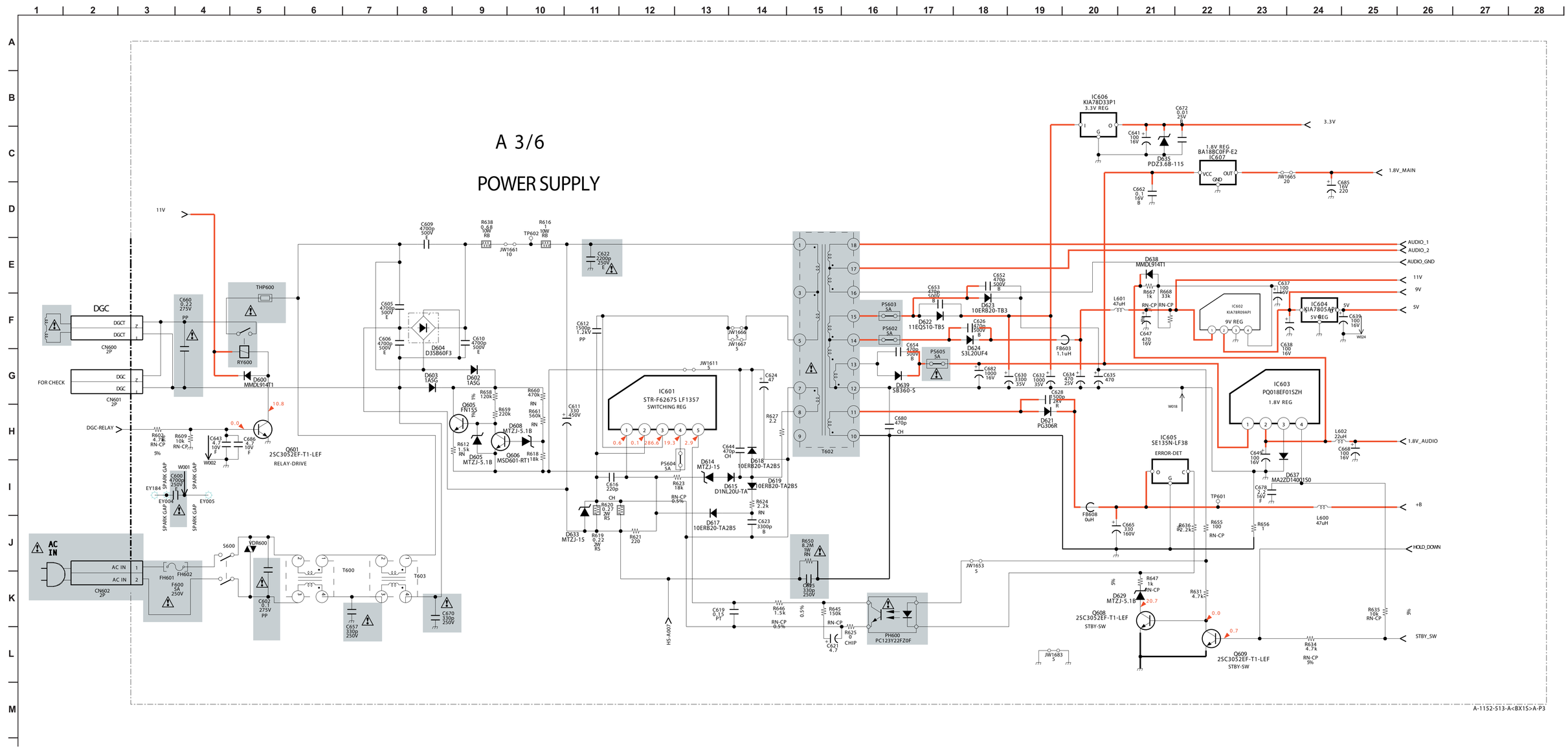

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DIAGRAMA ESQUEMÁTICO DA PLACA A (4 DE 6)

A 4/6

DEFLECTION

A-1152-513-A<BX15>A-P4

FORMAS DE ONDAS DA PLACA A

1 — 1.40Vp-p	2 — 132.0Vp-p	3 — 660.0mVp-p
4 — 700.0mVp-p	5 — 1.50Vp-p	

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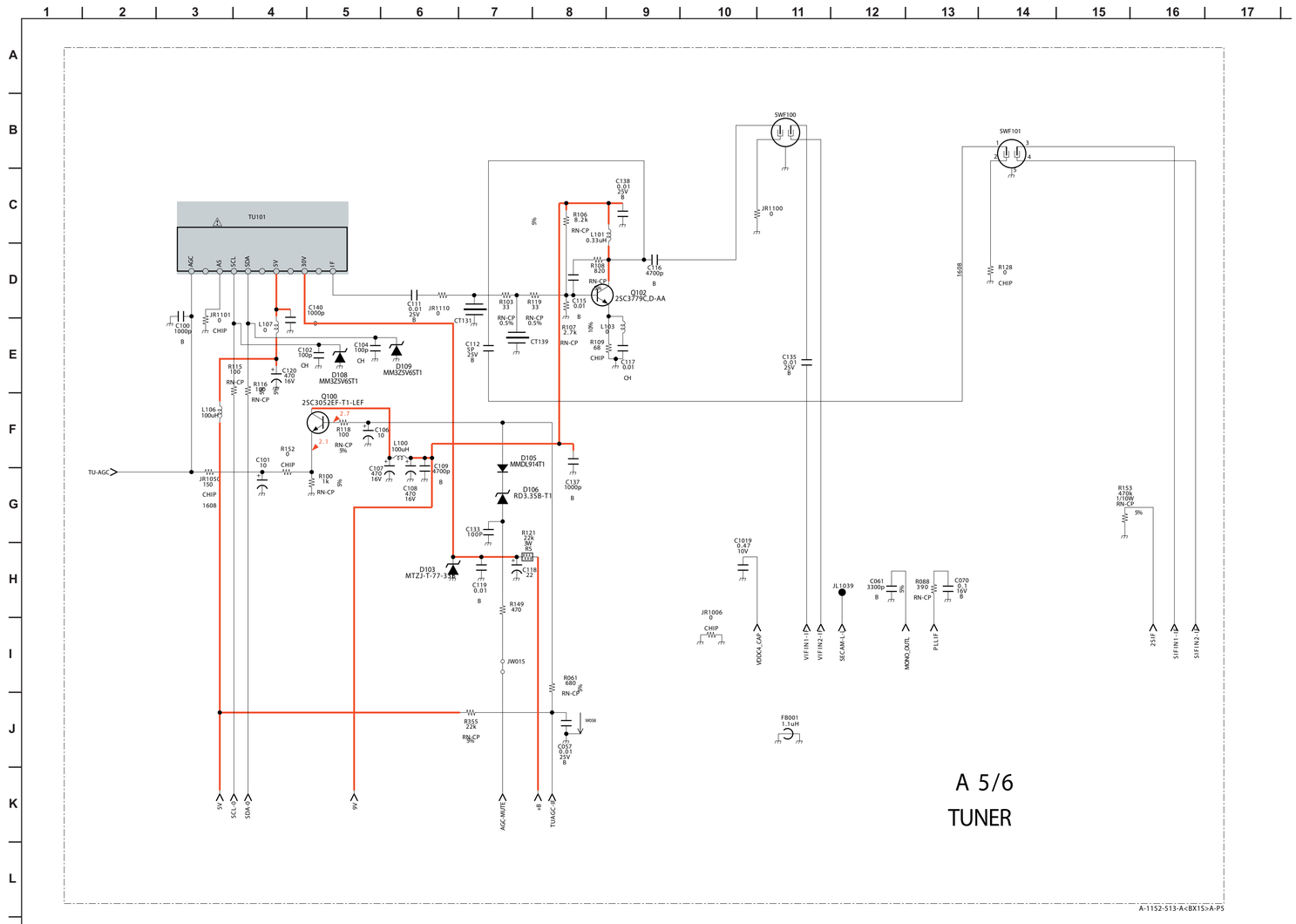
DIAGRAMA ESQUEMÁTICO DA PLACA A (5 DE 6)



A-1152-513-A<BX1S>A-P5

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DIAGRAMA ESQUEMÁTICO DA PLACA A (6 DE 6)

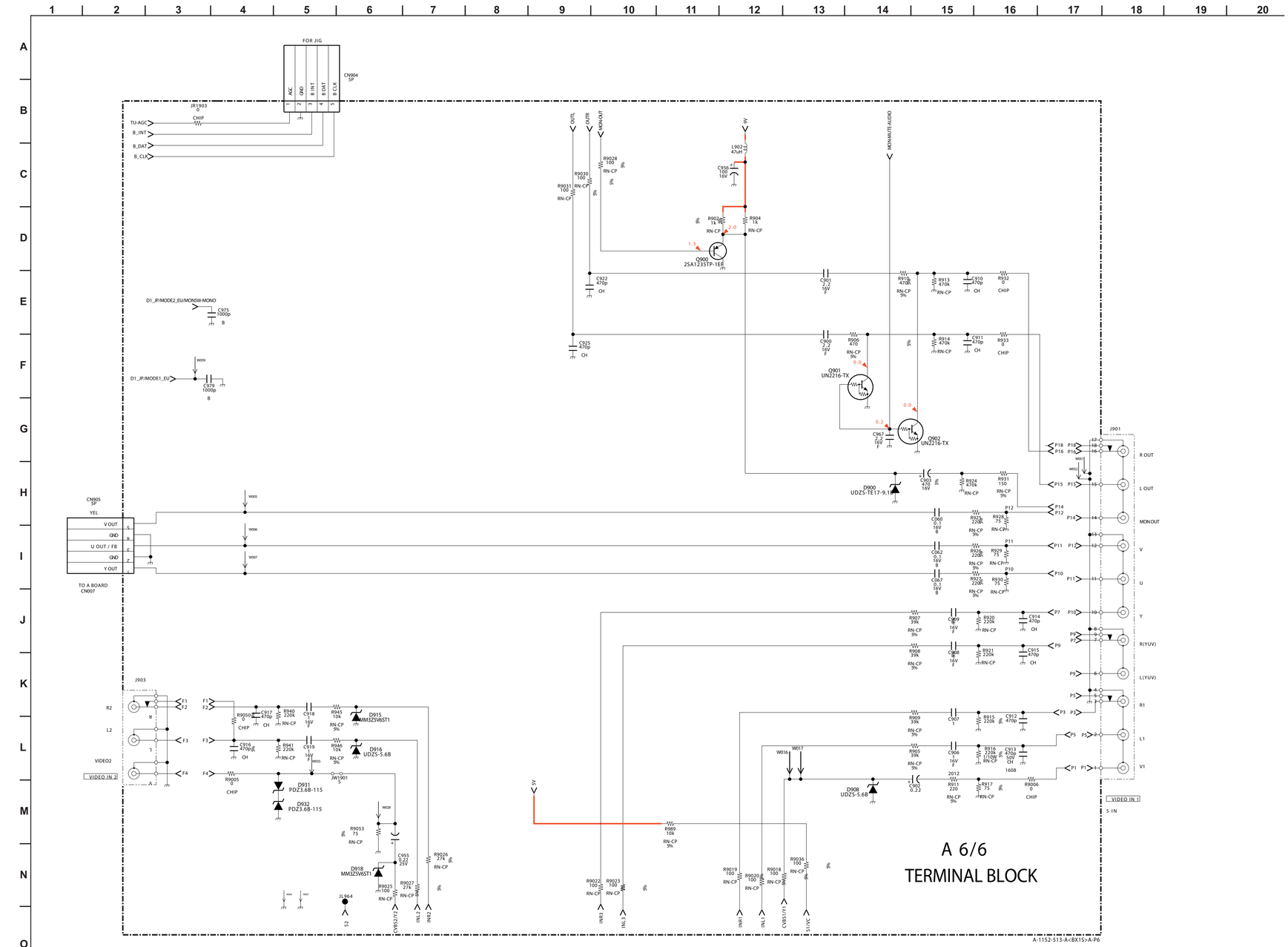

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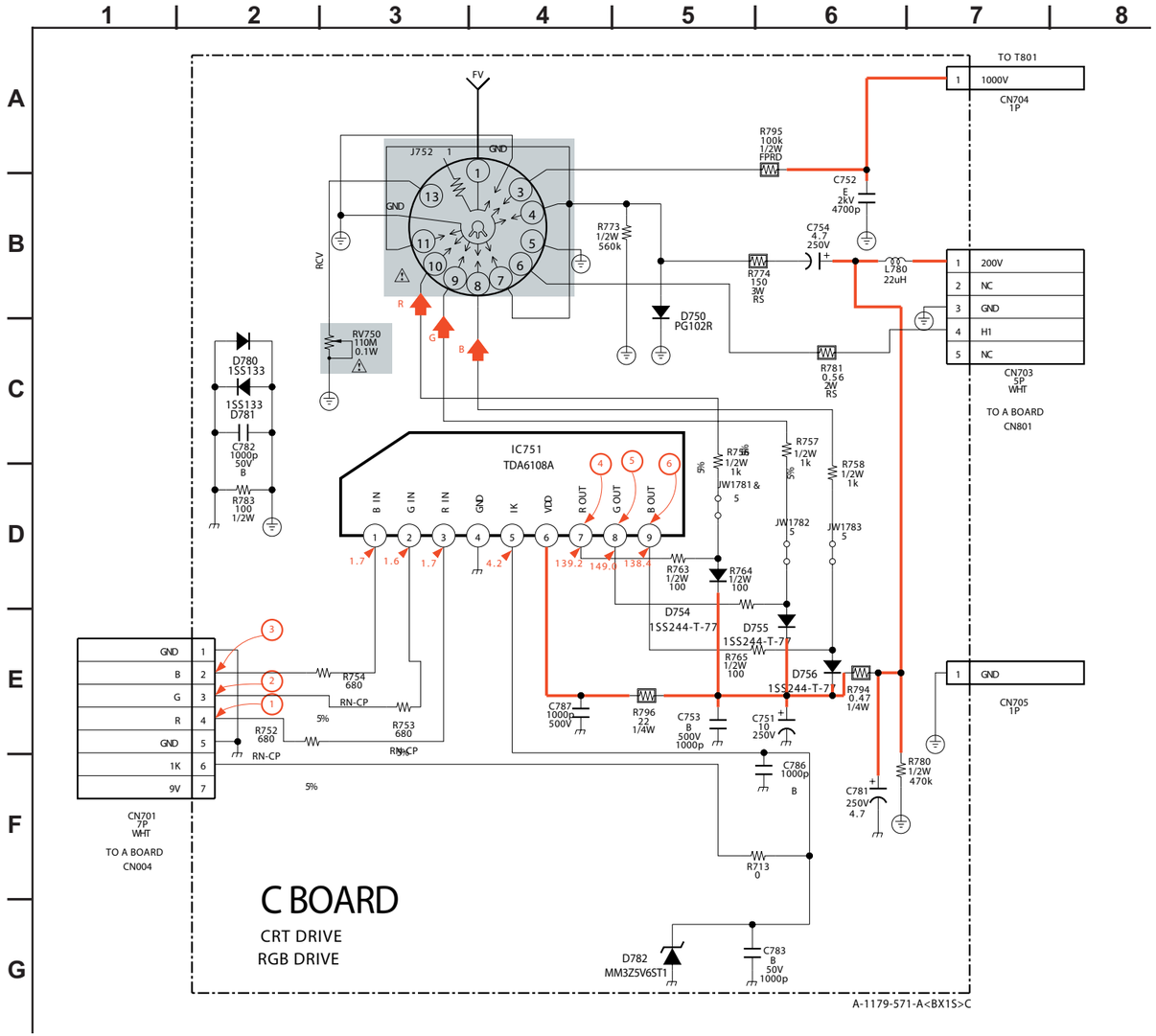
DIAGRAMA ESQUEMÁTICO DA PLACA C



FORMAS DE ONDAS DA PLACA C

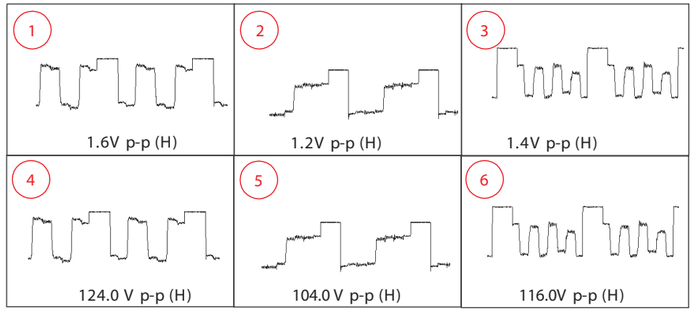


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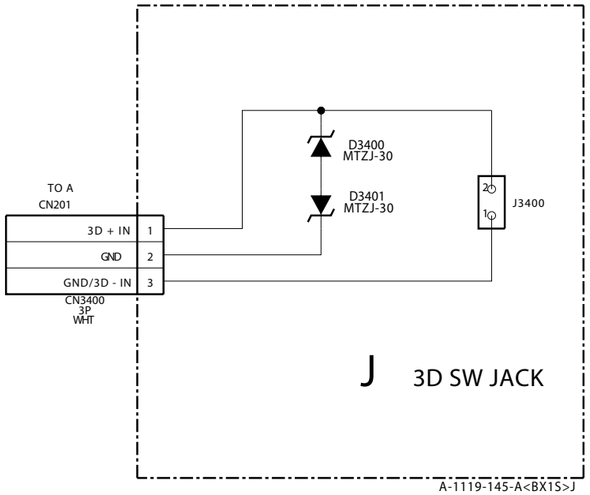
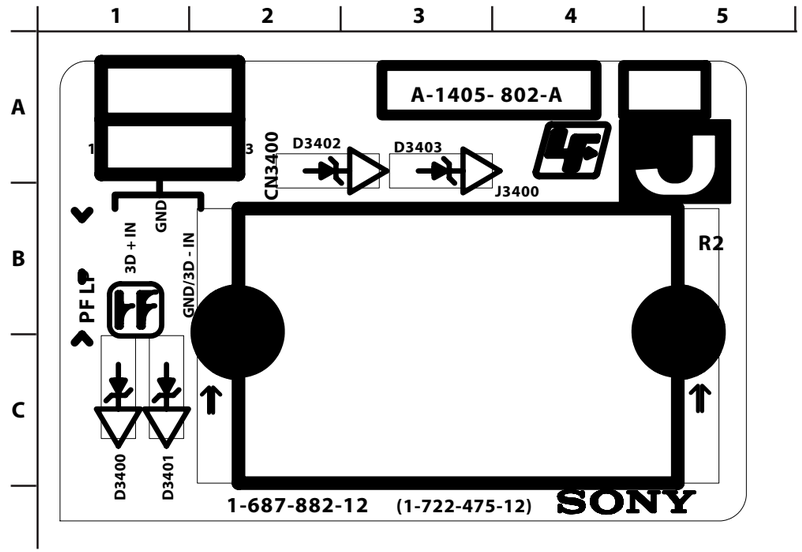
DIAGRAMA ESQUEMÁTICO DA PLACA J



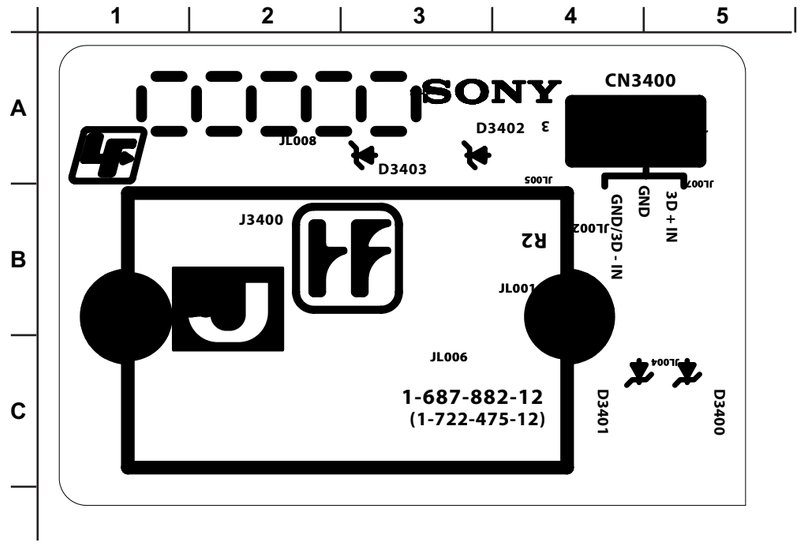
J [3D SAW JACK]

LADO DE COMPONENTE



J [3D SAW JACK]

LADO DE CONDUTOR



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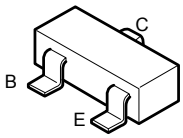
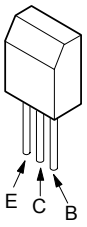
4-5. SEMICONDUTORES

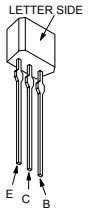
2SB709A-QRS-TX
2SD601A-QRS-TX



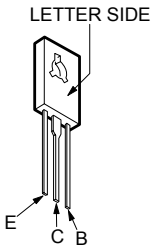
2SB734-T-34
2SC3209LK-TP



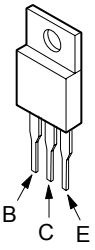
2SA1309A-QRSTA
2SC3311A-QRSTA
2SD2144S-TP-UVW



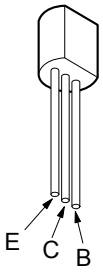
2SC3840K



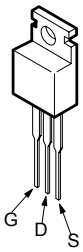
2SA1837



2SA1091O-TPE2



IRF614



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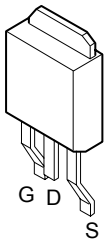
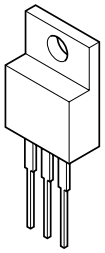


2SC4793



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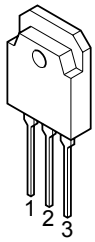
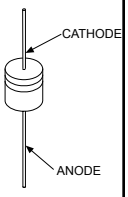


ERA38-06TP1
ERA82-004TP5
1SS133T-77
D1NS0R-TA
MTZJ-T-77-12C
MTZJ-T-77-15B
MTZJ-T-77-33B
MTZJ-T-77-39



RU-1P
ERC06-15S
EGP20DPKG23
MTZJ-T-77-5.1C
MTZJ-T-77-5.6C
MTZJ-T-77-7.5A
MTZJ-T-77-10B
MTZJ-T-77-30D
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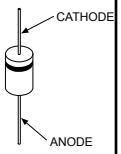
RGP02-17PKG23
RGP15GPKG23



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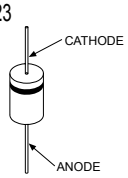
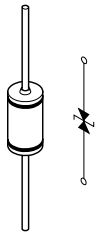
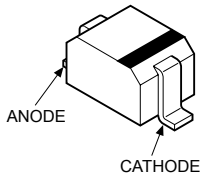


RD9.1EW-T1



MA111-TX
UDZ-TE-17.5.1B
UDZ-TE-17.91B



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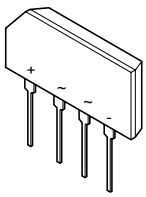
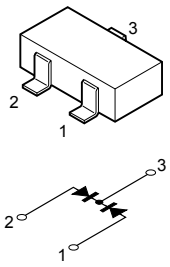


DAP202K-T-146



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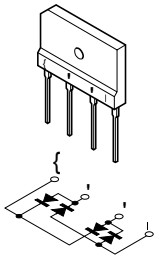
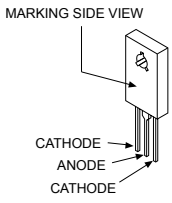


D5LC20U



TF541M